

The Warbling Silverbill, A New Nesting Bird in Hawaii¹

ANDREW J. BERGER²

BERGER (1972) did not include the Warbling Silverbill (*Lonchura malabarica*) as an exotic species in Hawaii, and there are no published records of the release of this species on Hawaii. The birds must have been released some time ago, however, because this Silverbill is now well established and undoubtedly occurs over a much wider area than I had time to search. In fact, on 26 April 1974, Dr. P. Quentin Tomich sent to me for identification the skin of a bird that he had found dead in a water tank at an elevation of 2,200 feet in the Puuanahulu Game Management Area on 2 May 1972. This bird was an adult Warbling Silverbill (*cantans*). This suggests that the present widespread population may have been derived from birds released on the Puuwaawaa Ranch; however, there are no published records of the passerine birds released there.

Two races of the Warbling Silverbill (*Lonchura malabarica cantans* and *L. m. orientalis*) are native to Africa; *cantans* is found from Senegal to western and southern Sudan; *orientalis* occurs from southwestern Arabia, Somalia, and southern Ethiopia to the drier parts of Kenya and northern Tanzania (Traylor 1968). The male and female are alike in plumage. The Warbling Silverbill has been described as "a light coffee coloured bird with a noticeable bluish beak" (Bannerman 1949: 239). The crown of the head is light brown with narrow, darker streaks; the back is a uniform grayish brown; the rump and tail feathers are "sepia brown, almost black." The outer webs of the primary flight feathers also are sepia brown. The chin and upper throat are sandy to rufous brown; the rest of the underparts are white, tinged with sandy buff, especially on the flanks; the under tail coverts are white. Bannerman said that the upper mandible is slate colored and that the lower mandible is light blue, but the

bill was silver-blue in four specimens collected in Hawaii. The legs and feet vary: pale gray, pale blue, or silver-blue. The eye appears to vary from dark gray to black. According to Archer and Godman (1961: 1492), the Arabian Silverbill (*orientalis*) has a brown eye, and the feet are "vinous red," with brown claws.

The third subspecies (*L. m. malabarica*) is native to Nepal, India, Pakistan, Bangladesh, and Ceylon, where it is called the White-throated Munia (Ali 1964). In this race, the rump and upper tail coverts are white. The legs and feet have been described by Baker (1926:90) as being "dark fleshy to reddish purple." This subspecies is called the Indian or Common Silverbill in the pet-store trade. Harrison (1964) considered the White-throated Munia to be a distinct species (*Lonchura malabarica*).

In both Asia and Africa, the Silverbills inhabit dry areas, often being "pre-eminently desert birds." Very little has been written about the breeding biology of these birds in their native habitat. The birds build a relatively large, domed nest of grasses with an entrance on one side. Archer and Godman (1961) described one nest as being "composed of the upper stems of seedling grass about six inches in length, with a bedding of multitudinous white flake-like seeds and a few white feathers." Feathers also were conspicuous in the nests I found. The eggs are immaculate white, and the usual clutch is said to number between four and six eggs.

I first saw Warbling Silverbills (*L. m. cantans*) near Kawaihae, Hawaii, on 22 March 1974. During the next 5 days my field trips were conducted from sea level to about 3.5 miles up the slope of the Kohala Mountain in that area. Kawaihae is a desert region, having less than 7 inches of rain annually. The vegetation consists primarily of introduced plants; grasses, kiawe or mesquite (*Prosopis pallida*), and haole koa (*Leucaena leucocephala*) are the dominant plants (Figure 1). Much of the lower slope of the mountain is bare ground and lava rocks of

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² University of Hawaii, Department of Zoology, Honolulu, Hawaii 96822.



FIGURE 1. Nesting habitat of the Warbling Silverbill, near Kawaihae, Hawaii, 10 April 1974. The arrow points to a nest.

various sizes, the only major plant life being grass tussocks and scattered kiawe trees, many of which are dead or dying. Rainfall increases with increasing elevation, and the kiawe and haole koa are much larger and more verdant beginning about 2.5 miles up the slope, especially in the numerous gulches. Cattle graze from this elevation up to the Waimea-Hawi highway.

I found the Warbling Silverbill to be generally distributed on these slopes from Puako to 2.5 miles north of Kawaihae, a distance of about 7 miles (I did not have time to search for the birds beyond this area). I saw a minimum of 75 birds during the 5 days. I visited the area again on 9 and 10 April. I found seven active nests of the Warbling Silverbill (Figure 2).

22 March: A nest with four white eggs and two small young estimated to be 2 to 3 days old.

23 March: A nest under construction; this nest held two eggs and one newly hatched nestling 9 April.

24 March: A nest with one egg; this nest had been destroyed before 9 April.

24 March: An inaccessible nest with two adult birds perched near it.

9 April: A nest with one egg and four small nestlings.

9 April: A nest under construction.

10 April: A nest with six eggs.

All but one of the nests were in kiawe trees; one nest was built in a tangle of hairy merremia (*Merremia aegyptia*), an introduced vine, covering the branches of a dead haole koa plant. The nests of most passerine birds are fairly well concealed among leaves but I found most of the Silverbill nests to be very conspicuous. A nest



FIGURE 2. Nest of the Warbling Silverbill opened to show the eggs and the lining of fine grasses and grass heads, 10 April 1974.

that was under construction on 9 April was being built in a dead kiawe tree with no leaves at all, and a nest containing one egg on 24 March was in a nearly leafless kiawe tree.

A number of bird species in Australia, Africa, and South America are noted for building their nests close to the nests of hymenopterous insects (primarily wasps and ants; rarely, bees). For example, Hindwood (1955) reported that the Banded Finch (*Poephila bichenovii*), Red-browed Finch (*Aegintha temporalis*), and the Ricebird (*Lonchura punctulata*) often nest near wasp nests in Australia. I have found a number of Ricebird nests on Oahu built close to the nests of the wasp *Polistes exclamans*, an introduced species to Hawaii. The nest of the

Warbling Silverbill that I found under construction on 23 March was being built directly above an active wasp nest. I found on 9 April that the entrance hole to the Silverbill nest was located less than 3 inches from the wasp nest.

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